City of Albuquerque
Information Technology Services Division
Data Management

Data.cabq.gov Core Metadata Requirements

Contact Information

Who is the contact for this dataset? The contact will be the City employee who is accountable for the data provided in this dataset and can act as front-line support in the event of any questions about the data.

Name	Narong Joe Saraphon
Department/Division	Transit Department
Phone	505-724-3113
Email	saraphon@cabq.gov

What Does this Dataset Describe?

What is the name of this dataset? How should a user identify this dataset in any communication with contact above? Provide a shorter description of the Dataset that can act as a one-line summary of the dataset when dealing with stakeholders. Provide a longer description of the data that can be readily understood by non-technical users.

Dataset Title	UNM Shuttles
Short Description	Near real-time location of UNM shuttles. UNMH shuttles are not included.

Full Non-Technical Description

There are two file types with the same data. This data includes:

- Vehicle ID number
- Message date and time
- Coordinates of the vehicle
- Speed of the vehicle
- Directionality of the vehicle in degrees from due north

The first file shuttle.json is intended for software and application developers. Standard json format is applied to data with field names matching General Transit Feed Specifications (GTFS) where possible. GTFS overview is available at https://developers.google.com/transit/reference.

The second file shuttle.kml is intended to be used with Google Earth's **Network Link** feature. The recommended settings for this link is with **Periodically Time-Based Refresh** rate of 5 seconds.

Efforts are made to provide real-time data but due to computing environments, data is actually near real-time at best. GPS data from UNM shuttles is sent at 12 second intervals. The output files are refreshed at approximately 5 second intervals. Other computing variables contributing to real-time latency include cellular data transmission, database read/write, anti-virus scanning and network firewalls.

If the vehicle's ignition is off then the last known location, date and time is shown. This allows the developer to control the behavior of their own software or app. The last known location, date and time is also shown when there is equipment failure.

How Should this Dataset be Cited?

How should external sources refer to this dataset in publications or documentation? Often this will simply be the URL and the date retrieved.

Data for every UNM shuttle is included in both shuttle.kml and shuttle.json

Does the Dataset Reflect a Particular Time Period?

Provide any date restrictions that may affect the validity of the data. The table fields are defined as follows:

Field	*Definition*
Start Date: Near real-time. See details in Full Non-Technical Description section.	*Start date of the time period within which this data falls. Format: MM/DD/YYYY HH:MM:SS.*
End Date: Near real-time. See details in Full Non-Technical Description section.	*End date of the time period within which this data falls. Format: MM/DD/YYYY HH:MM:SS.*
Dataset Refresh Interval	*Time period between Dataset refreshes. Format: "nn [seconds|minutes|hours|days|weeks|months|years] " or the word "Static" if never refreshed.*
Data Expiration Date: n/a	*Date after which the data must be considered stale and no longer of sufficient utility (fit-for-purpose). Format: MM/DD/YYYY HH:MM:SS.*
Dataset Review Date: n/a	*Date after which this dataset will be reviewed by the City for utility (fit-for-purpose) and usage. Format: MM/DD/YYYY HH:MM:SS.*

Comments	*Specific comments related to any time-specific features of this dataset.*

Start Date	kml files started in 2014, json files started February 2019.
End Date	N/A
Dataset Refresh Interval	See details in **Full Non-Technical Description** section**.**
Dataset Expiration Date	N/A
Dataset Review Date	N/A
Comments	

Dataset Definition/Format

Provide a field-by-field breakdown and definition of each record. This section acts as the formal data dictionary for an individual record.

shuttle.kml Field Name	**shuttle.json Field Name**	**Format**	**Description**
<name> tag	vehicle_id	alphanumeric	Vehicle ID number
<td> Msg Date</td>	msg_date	mm/dd/yyyy	Message date of GPS data
<td>Msg Time</td>	msg_time	hh:mm:ss (24 hr)	Message time of GPS data
<coordinates> tag	latitude	decimal	Latitude
<coordinates> tag	longitude	decimal	Longitude
<td>Speed</td>	speed_mph	decimal	Speed of vehicle in miles per hour
<heading> tag	heading	integer	Direction of travel based on 12 second data intervals

Dataset Technical Description

Provide a technical description of the dataset. This should be a complete technical description aimed at developers and expert users who need to understand the scope, strengths and limitations of the dataset.

- Most technical descriptions are stated above.

- There is no data available for current routes being served by these vehicles.

Dataset Assumptions

What technical and business assumptions are implied in the creation of this dataset? Examples could include the way in which a salary figure was calculated or data that was omitted for a specific reason.

If a files is missing or has become stagnant then the Transit Department and/or the data owner should be notified at 505-243-7433.

Who Produced the Dataset?

Which department in the City produced this dataset? Note that this might not always be the data manager. An example of this could be a dataset that ITSD produced on behalf of EHD who owned the data.

The Transit Department, IT Division is responsible for gathering the data sent from UNM vehicles and for publishing it in the two formats described.

Who Manages the Data?

Where did this data originate? Who manages the data used in this dataset? Note that this might not always be the dataset producer. An example of this could be a dataset that ITSD produced on behalf of EHD who manages the data.

UNM Parking and Transportation (PATS) Department is responsible for managing the equipment that originates the data.

UNM PATS and the Transit Department are responsible for managing this data.

Why was the Dataset Created?

All datasets should have an explicit reason for existence and should, somehow, have value to someone. What is the perceived value that this dataset will bring?

This dataset was created to allow applications to map UNM shuttles. One of the goals is to provide students with real-time location information.

How was the Dataset Created?

How was this dataset produced? Was it a manual process? An automated process? What were the main IT systems involved in producing this dataset?

An application named AVL Real Time Processor UNM was initially developed in 2014. The process is mostly automated with occasional manual manipulation of data for incoming new buses or retirement of older buses.

This application was written in house by Joe Saraphon.

What Similar or Related Data Should the User be Aware of?

Are there any other datasets available that may contain related or similar information? Might there be situations in which these other datasets might be a better alternative?

There is not another dataset for UNM vehicle locations.

Other related data are for ABQ RIDE vehicles:

http://data.cabq.gov/transit/Alerts/Alerts.txt
Messages impacting ABQ RIDE service

http://data.cabq.gov/transit/gtfs/google_transit.zip
General Transit Feed Specifications (GTFS) files used by Google to provide users with transit service.

http://data.cabq.gov/transit/realtime/busstops/stopxxxx.json and busstops.kml
Bus stop information

http://data.cabq.gov/transit/realtime/routexxxx.json and routexxxx.kml
Real time route information and vehicles serving those routes.

http://data.cabq.gov/transit/realtime/tracexxxx.json and tracexxxx.kml
The street trace representing the route being served.

How Reliable are the Data?

Are there any concerns about overall data reliability? Are there any data problems that the user needs to be aware of? Are there any constraints with data accuracy? What levels of confidence with this dataset could the user reasonably assume?

The data used in this dataset is derived from Transit production operational data located in Trapeze. In the normal course of business, the data is always available.

Data on http://data.cabq.gov/transit/unm is accessed via the City network. If the City has an outage, then the data will not be available. The City has a 99.5% up-time requirement. The City has scheduled maintenance on Sunday mornings; however it is the goal of the City to not interrupted service on http://data.cabq.gov.

How Well Have the Observations Been Checked?

What quality assurance steps have been performed? Sometimes, a third-party verification/audit process may also be required. If so, provide the name of the third-party who performed the

verification.

This data has been verified by the data owner and Transit IT.

Are there Legal Restrictions on the Access or Use of the Data?

Are there any specific legal or compliance restrictions for this data? How might this affect the way in which end users might access and use this data?

There are no legal restrictions on the access or use of the data.

Legal Disclaimer

The City's standard copyright, disclaimers and legal statements may be found at http://www.cabq.gov/abq-data/abq-data-disclaimer-1.